

Factoring a Negative!!

Sometimes it's convenient to factor a negative GCF out of a polynomial.

For example:

$$-2x^2 - 2x$$

$$-2x^2 - 4x + 6$$

$$-12x^2 - 6$$

Sometimes we may even factor out just a -1 if the polynomial is prime.

For example:

$$-x^2 - 6x + 1$$

$$-x^2 + 4$$

$$-2x^2 + 3x + 5$$

The reason behind this "-1 trick" will become more important later!!

Factor the negative GCF out of the following polynomials. If it is prime, factor a -1.

1. $-24x^4 - 54x$

2. $-8n - 6n^3$

3. $-12x^2 - 12$

4. $-3a^4b^4 + 6a^3b^3$

5. $-x^3 + 6$

6. $-4x^3 - 2x^2 - 2$

7. $-8 - 10x^2$

8. $-4x^2 - 6x + 12$

9. $-x^2 + 3x - 5$

10. $-7x^4 + 28x - 21x^2$

11. $-x^3 + x^2 - x$

12. $18x^4 - 12x^3 - 24x^2$